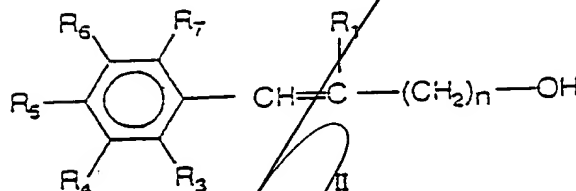
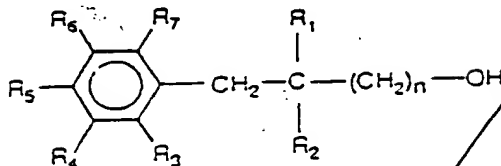


Patent claims

1. A compound of formula I or II,



in which

$R_2$  is selected from  $C_1$ - $C_8$  alkyl, uninterrupted or interrupted by oxygen and/or sulphur atoms,  $C_2$ - $C_8$  alkenyl and  $C_3$ - $C_8$  alkynyl,

$R_1$  is a significance of  $R_2$ , independently of  $R_2$ , or in compounds of formula I is hydrogen,

each of  $R_3$  to  $R_7$ , independently, is a significance of  $R_2$ , optionally attached to the aromatic ring by -S- or -O-, is H, halogen, nitrile or thiocyanate, and

$n$  is 1 or 2,

with the proviso, that in compounds of formula I

- i) where  $R_1$  and all groups  $R_3$  to  $R_7$  are hydrogen, then  
 $n = 2$ ;

- ii) where  $R_1$  and  $R_2$  are  $C_1-C_6$  alkyl and a) all groups  $R_3$  to  $R_7$  are hydrogen or b)  $R_5$  is methyl, methoxy or chloride and all other groups  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_7$  are hydrogen, then  $n = 2$ ;
- iii) where  $R_1$ ,  $R_2$  and  $R_4$  are methyl and all groups  $R_3$  and  $R_5$  to  $R_7$  are hydrogen, then  $n = 2$ ;
- iv) where  $R_1$  and all groups  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_7$  are hydrogen and  $R_5$  is methyl, isopropyl, tert. butyl or methoxy, then  $n = 2$ ;
- v) where  $R_1$ ,  $R_3$ ,  $R_6$  and  $R_7$  are hydrogen,  $R_2$  is methyl and  $R_4$  and/or  $R_5$  are H or  $C_1-C_6$  alkyl, then  $n = 2$ ;
- vi) where  $R_1$  and  $R_4$  to  $R_7$  are hydrogen,  $R_2$  is methyl or ethyl and  $R_3$  is methyl or methoxy, then  $n = 2$ ;
- vii) where  $R_1$ ,  $R_3$ ,  $R_5$  and  $R_7$  are hydrogen,  $R_2$  is methyl,  $R_4$  and  $R_6$  are methyl or  $R_4$  is hydrogen and  $R_6$  is methyl, then  $n = 2$ ;
- viii) where  $R_1$  is hydrogen,  $R_2$  is butyl,  $R_3$  and  $R_5$  are chloride and all other groups  $R_4$ ,  $R_6$  and  $R_7$  are hydrogen, then  $n = 2$ ;

and with the proviso, that in compounds of formula II

- ix) where  $R_1$  is  $C_1 - C_5$  alkyl or allyl and all other groups  $R_3$  to  $R_7$  are hydrogen, then  $n = 2$ , and
- x) where  $R_1$  is methyl,  $R_5$  is methyl and all other groups  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_7$  are hydrogen, then  $n = 2$ .

- ii) where  $R_1$  and  $R_2$  are  $C_1-C_6$  alkyl and a) all groups  $R_3$  to  $R_7$  are hydrogen or b)  $R_5$  is methyl, methoxy or chloride and all other groups  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_7$  are hydrogen, then  $n = 2$ ;
- iii) where  $R_1$ ,  $R_2$  and  $R_4$  are methyl and all groups  $R_3$  and  $R_5$  to  $R_7$  are hydrogen, then  $n = 2$ ;
- iv) where  $R_1$  and all groups  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_7$  are hydrogen and  $R_5$  is methyl, isopropyl, tert. butyl or methoxy, then  $n = 2$ ;
- v) where  $R_1$ ,  $R_3$ ,  $R_6$  and  $R_7$  are hydrogen,  $R_2$  is methyl and  $R_4$  and/or  $R_5$  are H or  $C_1-C_6$  alkyl, then  $n = 2$ ;
- vi) where  $R_1$  and  $R_4$  to  $R_7$  are hydrogen,  $R_2$  is methyl or ethyl and  $R_3$  is methyl or methoxy, then  $n = 2$ ;
- vii) where  $R_1$ ,  $R_3$ ,  $R_5$  and  $R_7$  are hydrogen,  $R_2$  is methyl,  $R_4$  and  $R_6$  are methyl or  $R_4$  is hydrogen and  $R_6$  is methyl, then  $n = 2$ ;

and with the proviso, that in compounds of formula II

where  $R_1$  is  $C_1 - C_5$  alkyl or allyl and all other groups  $R_3$  to  $R_7$  are hydrogen, then  $n = 2$ .

2. A compound according to claim 1, in which

in which

$R_2$  is selected from  $C_1-C_3$  alkyl, uninterrupted or interrupted by oxygen and/or sulphur atoms,  $C_2-C_3$  alkenyl and  $C_3-C_3$  alkynyl,

$R_1$  is a significance of  $R_2$ , independently of  $R_2$ , or in compounds of formula I is hydrogen,

each of R<sub>3</sub> to R<sub>7</sub>, independently, is a significance of R<sub>2</sub>, optionally attached to the aromatic ring by -S- or -O-, is hydrogen, fluorine, chlorine or bromine.

- a
3. A compound according to claim 1 ~~or 2~~ in which R<sub>2</sub> is methyl, ethyl, ethenyl, propyl, propenyl, propargyl, butyl and amyl,

R<sub>1</sub> is a significance of R<sub>2</sub>, independently of R<sub>2</sub>, or in compounds of formula I is hydrogen,

each of R<sub>3</sub> to R<sub>7</sub>, independently, is a significance of R<sub>2</sub>, is hydrogen, methyl-X-, ethyl-X-, ethenyl-X-, propyl-X-, propenyl-X-, propargyl-X-, isopropyl-X-, isopropenyl-X-, t-butyl-X-, methoxymethyl-X-, methoxyethyl-X-, ethoxymethyl-X-, ethoxyethyl-X-, methoxypropyl-X- or ethoxypropyl-X-, where X is -O- or -S-.

- a
4. A compound according to <sup>Claim 1</sup> ~~any of the preceding claims~~ in which n = 1.

- xa
5. A compound according to <sup>Claim 1</sup> ~~one of claims 1 to 4~~ which is (±)-2-(3-chlorobenzyl) butanol.

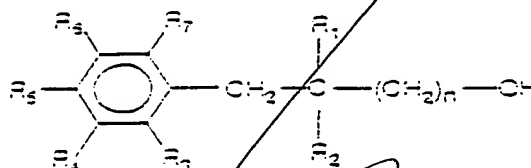
- a
6. Composition which contains at least one compound of formula I or II according to <sup>Claim 1</sup> ~~one of claims 1 to 5~~ and a compound selected from alcohols, surfactants and solvents.

7. Composition according to Claim 6 which contains a compound of formula I or II in a quantity of 0.01 to 10 % by wt., in particular 0.05 to 8 % by wt. and preferably 0.1 to 5 % by wt.

- B a
- 3
8. Composition according to claim <sup>14</sup> ~~6 or 7~~ which contains
- a) 0.01 to 10 % by wt. of a compound of formula I ~~or II~~, and

- b) 0.1 to 90 % by wt. of a compound selected from C<sub>1</sub>-C<sub>6</sub> alkyl alcohols, unsubstituted or substituted with a C<sub>6</sub>-C<sub>12</sub> aryl, aralkyl or aryloxy group, anionic, cationic, amphoteric or nonionic surfactants, dimethylform-amide, betaines and glycerine.

- a 9. Composition according to <sup>Claim 1</sup> ~~any of claims 6 to 8~~ which is a disinfectant, antiseptic, antimycotic, deodorant or preservative.
- X 10. Process for the production of a compound of formula I according to claim 1



in which

R<sub>2</sub> is selected from C<sub>1</sub>-C<sub>8</sub> alkyl, uninterrupted or interrupted by oxygen and/or sulphur atoms, C<sub>2</sub>-C<sub>8</sub> alkenyl and C<sub>3</sub>-C<sub>8</sub> alkynyl,

R<sub>1</sub> is a significance of R<sub>2</sub>, independently of R<sub>2</sub>, or is hydrogen,

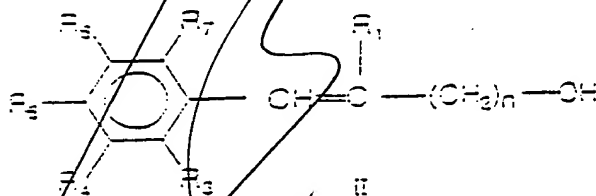
each of R<sub>3</sub> to R<sub>7</sub>, independently, is a significance of R<sub>2</sub>, optionally attached to the aromatic ring by -S- or -O-, is H, halogen, nitrile or thiocyanate, and

n is 1 or 2,

wherein

- a) a malonic acid dialkyl ester is monoalkylated, as a result of which the group  $R_2$  is introduced,
- b) the monoalkylated malonic acid alkyl ester is dialkylated with a benzyl halide optionally substituted at the aromatic ring, as a result of which the groups  $R_3$  to  $R_7$  are introduced, provided they are not hydrogen,
- c) the dialkylated malonic acid dialkyl ester is saponified and decarboxylated, as a result of which the correspondingly 3-aryl-substituted propionic acid results and
- d) this 3-aryl-substituted propionic acid is reduced with the formation of the desired alcohol of formula I.

11. Process for the production of a compound of formula II according to claim 1



in which

$R_1$  is selected from  $C_1$ - $C_8$  alkyl, uninterrupted or interrupted by oxygen and/or sulphur atoms,  $C_2$ - $C_8$  alkenyl and  $C_3$ - $C_8$  alkynyl,

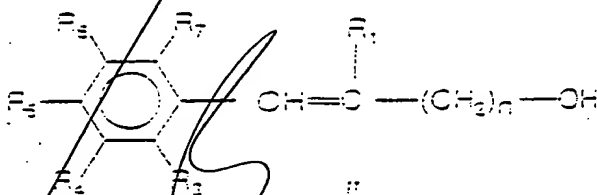
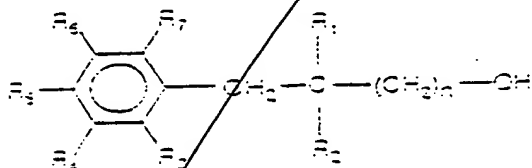
each of  $R_3$  to  $R_7$ , independently, is a significance of  $R_1$ , optionally attached to the aromatic ring by -S- or -O-, is H, halogen, nitrile or thiocyanate, and

$n$  is 1 or 2,

wherein in the case of  $n = 1$  a corresponding aromatic aldehyde is condensed with an anhydride with simultaneous decarboxylation and then the resulting acid is reduced with lithium aluminium hydride, or in the case of  $n = 2$  the tosy-

late of the respective alcohol with  $n = 1$  is substituted nucleophilically by NaCN and is saponified and the resulting acid is reduced with lithium aluminium hydride to give the desired alcohol.

12. Use of a compound of formula I or II



in which

$R_2$  is selected from  $C_1$ - $C_8$  alkyl, uninterrupted or interrupted by oxygen and/or sulphur atoms,  $C_2$ - $C_8$  alkenyl and  $C_3$ - $C_8$  alkynyl,

$R_1$  is a significance of  $R_2$ , independently of  $R_2$ , or in compounds of formula I is hydrogen,

each of  $R_3$  to  $R_7$ , independently, is a significance of  $R_2$ , optionally attached to the aromatic ring by -S- or -O-, is H, halogen, nitrile or thiocyanate, and

$n$  is 1 or 2,

as biocidal active ingredients,

X

where  $R_1$  and all groups  $R_2, R_3, R_4, R_5$  and  $R_7$  are hydrogen and  $R_6$  is isopropyl, tert. butyl, then  $n = 2$ .

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